

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A transceiver system comprising:
an antenna;
a filter unit comprising
a diplex filter, coupled to said antenna, said diplex filter including:
a full-band receiver (RX) filter; and
two part-band transceiver (TX) filters, wherein said full-band RX
filter is coupled to a first part-band TX filter; and
a first duplex filter including
a TX filter coupled to a second part-band TX filter in said diplex
filter; and
a RX filter; and
a plurality of radio base stations each of which have a duplex filter incorporated therein all of said plurality of radio base stations being ~~which are~~ coupled to said filter unit which in turn is coupled to said antenna, wherein said plurality of radio base stations share said antenna ~~even if said plurality of~~ radio base stations share a frequency band and/or ~~and even if said radio base stations~~ operate with different radio standards.
2. (Currently Amended) The transceiver system of claim 1, wherein ~~said filter unit includes:~~
~~a diplex filter, coupled to said antenna, said diplex filter includes:~~
~~a full-band receiver (RX) filter; and~~
~~two part-band transceiver (TX) filters, where said full-band RX filter is coupled to~~
~~the first part-band TX filter; and~~
~~a first duplex filter that includes:~~

~~a TX filter coupled to the second part-band TX filter in said diplex filter; and
a RX filter; and~~

of the plurality of radio base stations a said first radio base station having a
duplex filter incorporated therein that is coupled to the full-band RX filter and the first
part-band TX filter in said diplex filter;

said first radio base station also interfaces with a splitter that couples a RX signal
received from the full-band RX filter in said diplex filter to the RX filter in said first duplex
filter; and

of the plurality of radio base stations a said-second radio base station having a
duplex filter incorporated therein that is coupled to the TX filter and the RX filter in said
first duplex filter.

3. (Currently Amended) The transceiver system of claim 2, further
comprising:

said diplex filter further includes:

a third part-band transceiver (TX) filter; and

a second duplex filter that includes:

a TX filter coupled to the third part-band TX filter in said diplex filter; and

a RX filter; and

of the plurality of radio base stations, a said third radio base station having a
duplex filter incorporated therein that is coupled to the TX filter and the RX filter in said
second duplex filter that has the RX filter which receives the RX signal from the splitter.

4. (Currently Amended) The transceiver system of claim 1, wherein
said filter unit includes:

a part-band duplex filter, coupled to said antenna, said part-band duplex filter
includes:

two part-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the first part-band RX filter is coupled to the first part-band TX filter and where the second part-band RX filter is coupled to the second part-band TX filter; and
of the plurality of radio base stations, a said first radio base station having a
duplex filter incorporated therein that is coupled to the first part-band ~~part~~ RX filter and the first part-band TX filter in said part-band duplex filter; and
of the plurality of radio base stations, a said second radio base station having a
duplex filter incorporated therein that is coupled to the second part-band RX filter and the second part-band TX filter in said part-band duplex filter.

5. (Currently Amended) The transceiver system of claim 4, further comprising:

wherein said part-band duplex filter further comprises: includes:
a third part-band receiver (RX) filter; and
a third part-band transceiver (TX) filter, where the third part-band RX filter is coupled to the third part-band TX filter; and
of the plurality of radio base stations, a said third radio base station having a
duplex filter incorporated therein that is coupled to the third part-band RX filter and the third part-band TX filter in said part-band duplex filter.

6. (Currently Amended) The transceiver system of claim 1, wherein said filter unit includes:

~~an antenna;~~
a diplex-duplex filter, coupled to said antenna, said diplex-duplex filter including:
includes:
two full-band receiver (RX) filters; and
two part-band transceiver (TX) filters, where the first full-band RX filter is coupled to the first part-band TX filter and where the second full-band RX filter is coupled to the second part-band TX filter; and

of the plurality of radio base stations, a said first radio base station having a
duplex filter incorporated therein that is coupled to the first full-band RX filter and the
first part-band TX filter in said diplex-duplex filter; said first radio base station also
interfacing interfaces with a splitter that couples a RX signal received from the first full-
band RX filter to the second full-band RX filter in said diplex-duplex filter, wherein the
second full-band RX filter is not connected to said antenna; and

of the plurality of radio base stations, a said second radio base station having a
duplex filter incorporated therein that is coupled to the second full-band RX filter and the
second part-band TX filter in said diplex-duplex filter.

7. (Currently Amended) The transceiver system of claim 6, ~~further~~
~~comprising: wherein said diplex-duplex filter further comprises~~ includes:

a third full-band receiver (RX) filter; and

a third part-band transceiver (TX) filter, where the third full-band RX filter
is coupled to the third part-band TX filter; and

of the plurality of radio base stations, a said third radio base station having a
duplex filter incorporated therein that is coupled to the third full-band RX filter and the
third part-band TX filter in said diplex-duplex filter, wherein the third full-band RX filter is
not connected to said antenna but instead receives the RX signal from the splitter.

8. (Currently Amended) The transceiver system of claim 1, wherein
said filter unit includes:

~~an antenna;~~

a diplex-duplex filter, coupled to said antenna, said diplex-duplex filter includes:

two full-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the second full-band RX filter
is coupled to the second part-band TX filter; and

of the plurality of radio base stations, a said first radio base station having a
duplex filter incorporated therein that is coupled to the first full-band RX filter by way of a

low noise amplifier and is also coupled to first part-band TX filter in said diplex-duplex filter;

said low noise amplifier also coupling ~~couples~~ a RX signal received from the first full-band RX filter to the second full-band RX filter in said diplex-duplex filter, wherein the second full-band RX filter is not connected to said antenna; and

of the plurality of radio base stations, a said second radio base station having a duplex filter incorporated therein that is coupled to the second full-band RX filter and the second part-band TX filter in said diplex-duplex filter.

9. (Currently Amended) The transceiver system of claim 8, further comprising:

said diplex-duplex filter further includes:

a third full-band receiver (RX) filter; and

a third part-band transceiver (TX) filter, where the third full-band RX filter is coupled to the third part-band TX filter; and

of the plurality of radio base stations, a said third radio base station having a duplex filter incorporated therein that is coupled to the third full-band RX filter and the third part-band TX filter in said diplex-duplex filter, wherein the third full-band RX filter is not connected to said antenna but instead receives the RX signal from the low noise amplifier.

10. (Original) The transceiver system of claim 1, wherein said radio standards include:

time division multiple access (TDMA);

code division multiple access (CDMA);

wideband division multiple access (WCDMA); and

global system for mobile communication (GSM).

11. (Currently Amended) A method for constructing a transceiver system comprising the steps of:

providing an antenna;

providing a filter unit wherein said filter unit includes;

a duplex filter, coupled to said antenna, said duplex filter includes;

a full-band receiver (RX) filter; and

two part-band transceiver (TX) filters, where said full-band RX filter is coupled to the first part-band TX filter; and

a first duplex filter that includes;

a TX filter coupled to the second part-band TX filter in said duplex filter and a RX filter; and

providing at least two radio base stations, each of which have a duplex filter incorporated therein and all of which are coupled to said filter unit which in turn is coupled to said antenna, wherein said at least two radio base stations share said antenna even if said radio base stations share a frequency band and/or ~~and even if said radio base stations~~ operate with different radio standards.

12. (Currently Amended) The method of claim 11, wherein ~~said filter unit~~ includes:

~~a duplex filter, coupled to said antenna, said duplex filter includes;~~

~~a full-band receiver (RX) filter; and~~

~~two part-band transceiver (TX) filters, where said full-band RX filter is coupled to the first part-band TX filter; and~~

~~a first duplex filter that includes;~~

~~a TX filter coupled to the second part-band TX filter in said duplex filter;~~

~~and~~

~~a RX filter; and~~

of the at least two radio base stations, a said first radio base station includes the duplex filter incorporated therein which is coupled to the full-band RX filter and the first part-band TX filter in said duplex filter;

said first radio base station also interfaces with a splitter that couples a RX signal received from the full-band RX filter in said diplex filter to the RX filter in said first duplex filter; and

of the at least two radio base stations, a said second radio base station includes the duplex filter incorporated therein which is coupled to the TX filter and the RX filter in said first duplex filter.

13. (Original) The method of claim 12, wherein said step of providing at least two radio base stations includes adding a new radio base station to the at least two radio base stations in which case said diplex filter further includes:

a third part-band transceiver (TX) filter; and
a second duplex filter that includes:

a TX filter coupled to the third part-band TX filter in said diplex filter; and
a RX filter; and

said new radio base station includes a duplex filter incorporated therein which is coupled to the TX filter and the RX filter in said second duplex filter that has the RX filter which receives the RX signal from the splitter.

14. (Currently Amended) The method of claim 11, wherein said filter unit includes:

a part-band duplex filter,
coupled to said antenna, said part-band duplex filter includes:

two part-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the first part-band RX filter is coupled to the first part-band TX filter and where the second part-band RX filter is coupled to the second part-band TX filter; and

of the at least two radio base stations, a said first radio base station includes the duplex filter incorporated therein which is coupled to the first part-band ~~part~~ RX filter and the first part-band TX filter in said part-band duplex filter; and

of the at least two radio base stations, a said second radio base station includes the duplex filter incorporated therein which is coupled to the second part-band RX filter and the second part-band TX filter in said part-band duplex filter.

15. (Original) The method of claim 14, wherein said step of providing at least two radio base stations includes adding a new radio base station to the at least two radio base stations in which case said part-band duplex filter further includes:

a third part-band receiver (RX) filter; and

a third part-band transceiver (TX) filter, where the third part-band RX filter is coupled to the third part-band TX filter; and

said new radio base station includes a duplex filter incorporated therein which is coupled to the third part-band RX filter and the third part-band TX filter in said part-band duplex filter.

16. (Currently Amended) The method of claim 11, wherein said filter unit includes:

a diplex-duplex filter, coupled to said antenna, said diplex-duplex filter includes:

two full-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the first full-band RX filter is coupled to the first part-band TX filter and where the second full-band RX filter is coupled to the second part-band TX filter; and

of the at least two radio base stations, a said first radio base station includes the duplex filter incorporated therein which is coupled to the first full-band RX filter and the first part-band TX filter in said diplex-duplex filter;

said first radio base station also interfaces with a splitter that couples a RX signal received from the first full-band RX filter to the second full-band RX filter in said diplex-duplex filter, wherein the second full-band RX filter is not connected to said antenna; and

of the at least two radio base stations, a said second radio base station includes the duplex filter incorporated therein which is coupled to the second full-band RX filter and the second part-band TX filter in said diplex-duplex filter.

17. (Original) The method of claim 16, wherein said step of providing at least two radio base stations includes adding a new radio base station to the at least two radio base stations in which case said diplex-duplex filter further includes:

a third full-band receiver (RX) filter; and a third part-band transceiver (TX) filter, where the third full-band RX filter is coupled to the third part-band TX filter; and said new radio base station includes a duplex filter incorporated therein which is coupled to the third full-band RX filter and the third part-band TX filter in said diplex-duplex filter, wherein the third full-band RX filter is not connected to said antenna but instead receives the RX signal from the splitter.

18. (Currently Amended) The method of claim 11, wherein said filter unit includes:

a diplex-duplex filter, coupled to said antenna, said diplex-duplex filter includes:

two full-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the second full-band RX filter is coupled to the second part-band TX filter; and

of the at least two radio base stations, a said first radio base station includes the duplex filter incorporated therein which is coupled to the first full-band RX filter by way of a low noise amplifier and is also coupled to first part-band TX filter in said diplex-duplex filter;

said low noise amplifier also couples a RX signal received from the first full-band RX filter to the second full-band RX filter in said diplex-duplex filter, wherein the second full-band RX filter is not connected to said antenna; and

of the at least two radio base stations, a said second radio base station includes the duplex filter incorporated therein which is coupled to the second full-band RX filter and the second part-band TX filter in said diplex-duplex filter.

19. (Currently Amended) The method of claim 18, wherein said step of providing at least two radio base stations includes adding a new radio base station to the at least two radio base stations in which case said diplex-duplex filter further includes:

a third full-band receiver (RX) filter; and

a third part-band transceiver (TX) filter,

where the third full-band RX filter is coupled to the third part-band TX filter; and

said ~~third~~ new radio base station includes a duplex filter incorporated therein which is coupled to the third full-band RX filter and the third part-band TX filter in said diplex-duplex filter, wherein the third full-band RX filter is not connected to said antenna but instead receives the RX signal from the low noise amplifier.

20. (Original) The method of claim 11, wherein said radio standards include:

time division multiple access (TDMA);

code division multiple access (CDMA);

wideband division multiple access (WCDMA); and

global system for mobile communication (GSM).

21. (Currently Amended) An apparatus for sharing antenna(s) between a plurality of base stations, comprising:

[[An]] an antenna coupled to

a filter unit comprising:

a diplex filter, coupled to said antenna, said diplex filter includes:

a full-band receiver (RX) filter; and

two part-band transceiver (TX) filters, where said full-band RX filter is coupled to the first part-band TX filter; and

a first duplex filter that includes:

a TX filter coupled to the second part-band TX filter in said duplex filter; and

a RX filter; which is

wherein the filter unit is coupled to a plurality of duplex filters that are respectively incorporated within a plurality of radio base stations, wherein said radio base stations share said antenna even if said radio base stations share a frequency band and/or and even if said radio base stations operate with different radio standards.

22. (Currently Amended) The apparatus antenna of claim 21, wherein said filter unit includes: ~~a duplex filter, coupled to said antenna, said duplex filter includes:~~
~~a full-band receiver (RX) filter; and two part-band transceiver (TX) filters;~~
~~where said full-band RX filter is coupled to the first part-band TX filter; and~~
~~a first duplex filter that includes:~~
~~a TX filter coupled to the second part-band TX filter in said duplex~~
~~filter; and a RX filter; and~~

of the plurality of radio base stations, a said first radio base station includes the duplex filter incorporated therein which is coupled to the full-band RX filter and the first part-band TX filter in said duplex filter;

said first radio base station also interfaces with a splitter that couples a RX signal received from the full-band RX filter in said duplex filter to the RX filter in said first duplex filter; and

of the plurality of radio base stations, a said-second radio base station includes the duplex filter incorporated therein which is coupled to the TX filter and the RX filter in said first duplex filter.

23. (Currently Amended) The apparatus ~~The antenna~~ of claim 22, further comprising: ~~wherein said duplex filter further comprises:~~ includes:

a third part-band transceiver (TX) filter; and

a second duplex filter that includes:

a TX filter coupled to the third part-band TX filter in said duplex filter; and

a RX filter; and

of the plurality of radio base stations, a said third radio base station includes the
duplex filter incorporated therein which is coupled to the TX filter and the RX filter in
said second duplex filter that has the RX filter which receives the RX signal from the
splitter.

24. (Currently Amended) The apparatus ~~The antenna~~ of claim 21,
wherein said filter unit includes:

a part-band duplex filter, coupled to said antenna, said part-band duplex filter
includes:

two part-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the first part-band RX filter is
coupled to the first part-band TX filter and where the second part-band RX filter is
coupled to the second part-band TX filter; and

of the plurality of radio base stations, a said first radio base station includes the
duplex filter incorporated therein which is coupled to the first part-band ~~part~~ RX filter and
the first part-band TX filter in said part-band duplex filter; and

of the plurality of radio base stations, a said second radio base station includes
the duplex filter incorporated therein which is coupled to the second part-band RX filter
and the second part-band TX filter in said part-band duplex filter.

25. (Currently Amended) The apparatus ~~The antenna~~ of claim 24, further
comprising:

said part-band duplex filter further includes:

a third part-band receiver (RX) filter; and

a third part-band transceiver (TX) filter, where the third part-band RX filter
is coupled to the third part-band TX filter; and includes the duplex filter
incorporated therein which is coupled to the third part-band RX filter and the third
part-band TX filter in said part-band duplex filter.

26. (Currently Amended) The apparatus ~~The antenna~~ of claim 21,
wherein said filter unit includes:

~~an antenna;~~

a diplex-duplex filter, coupled to said antenna, said diplex-duplex filter includes:

two full-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the first full-band RX filter is coupled to the first part-band TX filter and where the second full-band RX filter is coupled to the second part-band TX filter; and

of the plurality of radio base stations, a said first radio base station includes the duplex filter incorporated therein which is coupled to the first full-band RX filter and the first part-band TX filter in said diplex-duplex filter;

said first radio base station also interfaces with a splitter that couples a RX signal received from the first full-band RX filter to the second full-band RX filter in said diplex-duplex filter, wherein the second full-band RX filter is not connected to said antenna; and

of the plurality of radio base stations, a said second radio base station includes the duplex filter incorporated therein which is coupled to the second full-band RX filter and the second part-band TX filter in said diplex-duplex filter.

27. (Currently Amended) The apparatus ~~The antenna~~ of claim 26, further comprising:

said diplex-duplex filter further includes:

a third full-band receiver (RX) filter; and

a third part-band transceiver (TX) filter, where the third full-band RX filter is coupled to the third part-band TX filter; and

of the plurality of radio base stations, a said third radio base station includes the duplex filter incorporated therein which is coupled to the third full-band RX filter and the third part-band TX filter in said diplex-duplex filter, wherein the third full-band RX filter is not connected to said antenna but instead receives the RX signal from the splitter.

28. (Currently Amended) The apparatus ~~The transceiver system~~ of claim 21, wherein said filter unit includes:

a diplex-duplex filter, coupled to said antenna, said diplex-duplex filter includes:

two full-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the second full-band RX filter is coupled to the second part-band TX filter; and

of the plurality of radio base stations, a said first radio base station includes the duplex filter incorporated therein which is coupled to the first full-band RX filter by way of a low noise amplifier and is also coupled to a first part-band TX filter of the two part-band transceiver (TX) filters in said diplex-duplex filter;

said low noise amplifier also couples a RX signal received from the first full-band RX filter to the a second full-band RX filter of the two full-band receiver (RX) filters in said diplex-duplex filter, wherein the second full-band RX filter is not connected to said antenna; and

of the plurality of radio base stations, a said second radio base station includes the duplex filter incorporated therein which is coupled to the second full-band RX filter of the two full-band receiver (RX) filters and the second part-band TX filter of the two part-band transceiver (TX) filters in said diplex-duplex filter.

29. (Currently Amended) The apparatus ~~The antenna~~ of claim 28, further comprising: wherein said diplex-duplex filter further comprises includes:

a third full-band receiver (RX) filter; and

a third part-band transceiver (TX) filter, where the third full-band RX filter is coupled to the third part-band TX filter; and

said third radio base station includes the duplex filter incorporated therein which is coupled to the third full-band RX filter and the third part-band TX filter in said diplex-duplex filter, wherein the third full-band RX filter is not connected to said antenna but instead receives the RX signal from the low noise amplifier.

30. (Currently Amended) ~~The apparatus~~ The antenna of claim 21,
wherein said radio standards include:

time division multiple access (TDMA);
code division multiple access (CDMA);
wideband division multiple access (WCDMA); and
global system for mobile communication (GSM).

31. (Currently Amended) A radio base station comprising:
a duplex filter that is coupled to
a filter unit, which includes a duplex filter, coupled to said antenna, said duplex
filter includes:

a full-band receiver (RX) filter; and
two part-band transceiver (TX) filters, where said full-band RX filter is
coupled to the first part-band TX filter; and
a first duplex filter that includes:

a TX filter coupled to the second part-band TX filter in said duplex filter;
and

a RX filter,
wherein the filter unit which in turn is coupled to an antenna, wherein
another an additional radio base station, which also incorporates a duplex filter is
coupled to said filter unit such that said radio base stations can share the
antenna even if said radio base stations share a frequency band and/or and even
if said radio base stations operate with different radio standards.

32. (Currently Amended) The radio base station of claim 31, wherein
~~said filter unit includes:~~

~~a duplex filter, coupled to said antenna, said duplex filter includes:~~
~~a full-band receiver (RX) filter; and~~
~~two part-band transceiver (TX) filters, where said full-band RX filter is~~
~~coupled to the first part-band TX filter; and~~

~~a first duplex filter that includes:~~

~~a TX filter coupled to the second part-band TX filter in said duplex filter;~~

~~and~~

~~a RX filter; and~~

said radio base station includes the duplex filter incorporated therein which is coupled to the full-band RX filter and the first part-band TX filter in said duplex filter;

said radio base station also interfaces with a splitter that couples a RX signal received from the full-band RX filter in said duplex filter to the RX filter in said first duplex filter; and

said another ~~additional~~-radio base station includes the duplex filter incorporated therein which is coupled to the TX filter and the RX filter in said first duplex filter.

33. (Currently Amended) The radio base station of claim 31, wherein said filter unit includes:

a part-band duplex filter, coupled to said antenna, said part-band duplex filter includes:

two part-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the first part-band RX filter is coupled to the first part-band TX filter and where the second part-band RX filter is coupled to the second part-band TX filter; and

said first radio base station includes the duplex filter incorporated therein which is coupled to the first part RX filter and the first part-band TX filter in said part-band duplex filter; and

said another ~~additional~~ radio base station includes the duplex filter incorporated therein which is coupled to the second part-band RX filter and the second part-band TX filter in said part-band duplex filter.

34. (Currently Amended) The radio base station of claim 31, wherein said filter unit includes:

a diplex-duplex filter, coupled to said antenna, said diplex-duplex filter includes:

two full-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the first full-band RX filter is coupled to the first part-band TX filter and where the second full-band RX filter is coupled to the second part-band TX filter; and

said radio base station includes the duplex filter incorporated therein which is coupled to the first full-band RX filter and the first part-band TX filter in said diplex-duplex filter;

said radio base station also interfaces with a splitter that couples a RX signal received from the first full-band RX filter to the second full-band RX filter in said diplex-duplex filter, wherein the second full-band RX filter is not connected to said antenna; and

said another ~~additional~~ radio base station includes the duplex filter incorporated therein which is coupled to the second full-band RX filter and the second part-band TX filter in said diplex-duplex filter.

35. (Currently Amended) The radio base station of claim 31, wherein said filter unit includes:

a diplex-duplex filter, coupled to said antenna, said diplex-duplex filter includes:

two full-band receiver (RX) filters; and

two part-band transceiver (TX) filters, where the second full-band RX filter is coupled to the second part-band TX filter; and

said ~~first~~ radio base station includes the duplex filter incorporated therein which is coupled to the first full-band RX filter by way of a low noise amplifier and is also coupled to first part-band TX filter in said diplex-duplex filter;

said low noise amplifier also couples a RX signal received from the first full-band RX filter to the second full-band RX filter in said diplex-duplex filter, wherein the second full-band RX filter is not connected to said antenna; and

said another ~~additional~~ radio base station includes the duplex filter incorporated therein which is coupled to the second full-band RX filter and the second part-band TX filter in said diplex-duplex filter.

36. (Currently Amended) The radio base station antenna of claim 31,
wherein said radio standards include:

time division multiple access (TDMA);
code division multiple access (CDMA);
wideband division multiple access (WCDMA); and
global system for mobile communication (GSM).